

REMARKS

Claims 1-35 are pending in this application. By this Amendment, claims 1-3, 7, 8, 13, 17, 18, 21-24, 26, 28, 29 and 32 are amended and new claims 33-35 are added. Various changes are made to the claims for clarity and are unrelated to issues of patentability.

The Office Action rejects claims 8, 23 and 24 under 35 U.S.C. §112, second paragraph. It is respectfully submitted that the above amendments to claims 8, 23 and 24 obviate the grounds for rejection. Withdrawal of the rejection under 35 U.S.C. §112 is respectfully requested.

The Office Action rejects claims 1-32 under 35 U.S.C. §103(a) over U.S. Patent 6,654,616 to Pope, Jr. et al. (hereafter Pope) in view of U.S. Patent 6,351,456 to Struhsaker et al. (hereafter Struhsaker). The rejection is respectfully traversed.

Independent claim 1 recites a WLL transceiver section adapted to connect to the WLL base station to transmit and receive a radio signal to and from the WLL base station, a WLAN transceiver section adapted to connect to the plurality of WLAN terminals to transmit and receive a radio signal to and from the plurality of WLAN terminals, and an antenna unit for receiving the radio signal from the WLL base station and the plurality of WLAN terminals and applying the received radio signal to a corresponding processor of either the WLL transceiver section or the WLAN transceiver section.

Pope and Struhsaker do not teach or suggest all the features of independent claim 1. Additionally, Pope and Struhsaker may not be properly combined as suggested to find all the features of independent claim 1. More specifically, Pope discloses a system in which various buildings 45 may be configured via wireless links as shown in Figure 4. For example, a terminal WLAN 43 located on each of the buildings 45 may communicate with one of the local LANs 42A, 42B, 42C. The WLAN 42A may also be associated with a communication system 10A.

Each of the associative local WLANs 42A-42C may be configured for communication with one respective system.

The Office Action indicates that Pope does not disclose a wireless local loop (WLL) base station/transceiver (system). The Office Action then relies on Struhsaker's Figure 2 (and col. 5, lines 15-25 and col. 8, lines 23-40) as teaching a WLL system that includes one or more base transceiver sites and each remote unit includes a radio transceiver and an antenna system. The Office Action then asserts that it would have been obvious to modify Pope's system as taught by Struhsaker in order to enhance the communication reliability in a wireless communication system.

However, Struhsaker merely discloses an implementation of a LAN on a WLL system. See, for example, col. 8, lines 23-40. WLL systems include various features such as a network interface 200 including a base station as shown in Figure 2. However, there is no teaching of how Struhsaker's WLL may be combined with Pope's system. Furthermore, there is no suggestion of how the features of both references may be combined to reach the features of independent claim 1.

The present specification describes a wireless local loop system that is a separate from a WLAN system. See, for example, Figure 1 of the present application. However, problems exist with the separate WLL and WLAN systems as described on pages 2-6 of the present application. That is, when using separate WLL and WLAN systems, there have been problems in accessing the internet simultaneously. Furthermore, there have been difficulties in both systems being operated independently of one another. Embodiments of the present application may solve these problems by provided an integrated WLL and WLAN transceiver apparatus. Neither Pope nor Struhsaker discuss the problems involved with having separate WLAN and WLL systems,

since each is its own separate system. Furthermore, there is no suggestion in Pope or in Struhsaker for a combined WLL transceiver section and WLAN transceiver section. The Office Action's indication that communications may be enhanced is not sufficient motivation to combine these separate references having different types of systems. Thus, the Office Action has clearly relied on impermissible hindsight in order to combine these references, as there is no suggestion in the prior art. Furthermore, the present application describes problems that have existed with separate independent systems. Neither of the references recognize this problem and/or address ways in which to solve these problems. Applicant respectfully submits that the combined references do not teach or suggest all these features as they may not be properly combined as alleged in the Office Action.

Furthermore, even if the references are combined as alleged in the Office Action, the combination still does not teach or suggest an antenna unit for receiving the radio signal from the WLL base station and the plurality of WLAN terminals and applying the received radio signal to a corresponding processor of either the WLL transceiver section or the WLAN transceiver section as recited in independent claim 1. Thus, independent claim 1 defines patentable subject matter.

Each of independent claims 12, 15, 18 and 32 define patentable subject matter for at least similar reasons. For example, independent claim 12 recites transmitting the data which has been subjected to a predetermined procedure in the WLL receiving processor through a digital baseband processor and an MAC to a WLAN transmitting processor. Independent claim 15 recites transmitting the data which has been subjected to a predetermined procedure in the WLAN receiving processor through a MAC and a digital baseband processor to a WLL transmitting processor. Neither Pope nor Struhsaker teaches or suggests that data passes

through a digital baseband processor and a MAC to a WLAN transmitting processor or that data passes through a MAC and a digital baseband processor to a WLL transmitting processor. These features may involve both a WLL and a WLAN system, which are neither taught nor suggested by the combination of Pope and Struhsaker. Accordingly, independent claims 12 and 15 define patentable subject matter for at least this reason.

Additionally, independent claim 18 recites a memory storing data and instructions to enable the processing of data to conform to a WLL signaling scheme and to enable the processing of data to conform to a WLAN signaling scheme. Still further, independent claim 32 recites means for translating the data between a WLAN signaling protocol and a WLL signaling protocol. Neither Pope nor Struhsaker relate to processing data to conform to a WLL signaling scheme and a WLAN signaling scheme. Additionally neither Pope nor Struhsaker relate to translating the data between a WLAN signaling protocol and a WLL signal protocol. Accordingly, each of independent claims 18 and 32 defines patentable subject at least for this additional reason.

Claims 2-11, 33 and 34 depend from claim 1, claims 13 and 14 depend from claim 12, claims 16 and 17 depend from claim 15, and claims 19-31 and 35 depend from claim 18 and therefore define patentable subject matter at least for this reason. In addition, the dependent claims also recite features that further and independently distinguish over the applied references.

For example, dependent claim 3 recites a WLAN reception processing section adapted to receive the radio signal from the plurality of WLAN terminals and perform a predetermined reception process for the received radio signal for application to a digital baseband processor of the WLL transceiver section. Dependent claim 3 also recites a medium access controller (MAC) adapted to supply the signal applied thereto from the digital baseband processor to the WLAN

transmission processing section or supply the signal applied thereto from the WLAN reception processing section to the digital baseband processor of the WLL transceiver section. Pope and Struhsaker do not teach or suggest these respective features involving the WLAN transceiver section and the digital baseband processor of the WLL transceiver section as recited in dependent claim 3. That is, there is no disclosure in either reference of the interactions of a WLAN reception processing section and a medium access controller of the WLAN transceiver section as recited in dependent claim 3.

Furthermore, dependent claim 5 (and similarly dependent claims 14 and 19) recite that the WLL transceiver section and the WLAN transceiver section share one phase locked loop (PLL) using a plurality of distributors. See also dependent claim 16. Pope and Struhsaker do not teach or suggest these features. Furthermore, dependent claim 6 recites that the integrated WLL and WLAN transceiver apparatus is included in a specific computer, and allows the specific computer to function as a server of the plurality of WLAN terminals. The Office Action relies on Pope's Figure 1 and col. 3, lines 21-65. However, this does not teach or suggest an integrated WLL and WLAN transceiver apparatus included in a specific computer. Thus, the applied references do not teach or suggest these features of dependent claim 6.

Furthermore, dependent claim 31 recites the medium access controller is further equipped to process the digital data for transfer to or from the WLL transceiver. Additionally, dependent claim 33 recites that the antenna unit applies received signals to a WLL reception processing section of the WLL transceiver section. Still further, dependent claim 35 recites that the antenna unit applies received signals to the WLL transceiver and to the WLAN transceiver. The applied references do not teach or suggest these features.

For at least the reasons set forth above, each of the respective dependent claims define patentable subject matter for at least these additional reasons. Accordingly, for the reasons set forth above, each of claims 1-35 defines patentable subject matter. Withdrawal of the outstanding rejections is respectfully requested.

CONCLUSION

In view of the foregoing, it is respectfully submitted that the application is in condition for allowance. Favorable consideration and prompt allowance of claims 1-35 are earnestly solicited. If the Examiner believes that any additional changes would place the application in better condition for allowance, the Examiner is invited to contact the undersigned attorney, **David C. Oren**, at the telephone number listed below.

To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this, concurrent and future replies, including extension of time fees, to Deposit Account 16-0607 and please credit any excess fees to such deposit account.

Respectfully submitted,
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